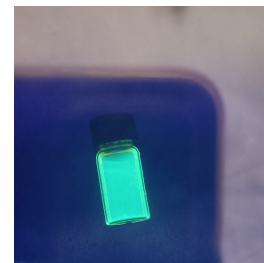


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🌐 Synthesis of Carbon Dots using Citric acid (Solvent Free reaction)

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Protocol status: Working

We use this protocol and it's working

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Keywords: facile synthesis of carbon dot, synthesis of carbon dot, synthesized carbon dot, carbon dot, fluorescent nanoparticle, fluorescence, fluorescence in the range, facile synthesis, using citric acid, citric acid as the precursor, citric acid

Abstract

Carbon Dots are the fluorescent nanoparticles that have wide range of applications. Facile synthesis of Carbon Dots paves the way for making this material mainstream for use. Synthesis of Carbon Dots by using Citric acid as the precursor in a solvent free reaction is a easy method in which the synthesized Carbon Dots shows fluorescence in the range of 520nm. This mode is simple and doesn't require complex instrumentation.

Protocol materials

 Citric Acid P212121


Troubleshooting





Synthesis of Carbon Dots using Citric acid (Solvent Free reaction)

42m

1

 Citric Acid **P212121**

2m

 2 g in RB flask and heat on heating mantle and melt the compound  120 °C

2

Once you get the yellow molten compound , drop it in the **[M] 0.1 Mass Percent**


15m

 Sample 100ml solution, dropwise and stir it on magnetic stirrer.

Synthesis of Carbon Dots using Citric acid (Solvent Free reaction)

42m

3

Then centrifuge the solution at 15000rpm for  00:25:00 and collect the supernatant and characterize it for fluorescence by using UV-Vis spectrophotometer and subsequently by using PL instrument.

25m

3.1

Expected result

In UV-Vis absorption peak will be at 210nm and in PL the excitation peak will be a wide peak in the range of 520 nm